

1959

SMITHSONIAN-BREDIN CARIBBEAN EXPEDITION

Members of the Party

J. Bruce Bredin
Dr. Waldo L. Schmitt
Dr. Richard S. Cowan
Dr. Thomas E. Bowman
Richard F. Darsie
William F. Amos
John Finlay
Desmond Nicholson

cut out
collectors names
not considered
entered

Station 1-59

Several vertical tows (combined) made with 12" plankton net, no. 20 mesh, yacht harbor, Port of Spain, Trinidad. 10:30 P.M., April 2, 1959. Bowman.

Station 2-59

Parasitic copepods from gills and intestinal cysts from gaff-topsail catfish caught from ship by hook and line, yacht harbor, Port of Spain, Trinidad. Depth to bottom 3.5-4 fms. 2 P.M., April 3, 1959. Cowan.

Station 3-59

Large brittle star and 2 porcellanids caught on fishing line from ship, yacht harbor, Port of Spain, Trinidad. 3.5-4 fms. 3 P.M., April 3, 1959. Cowan.

Station 4-59

W. of Pigeon Point, Tobago, W. I. 1-3:30 P.M., April 4, 1959.

Station 5-59

From sand and beach debris from just above lap of water on shore, W. of Pigeon Point, Tobago, W. I. 1-3:30 P.M., April 4, 1959.

Station 6-59

Cracked from weedy coral rock, W. of Pigeon Point, Tobago, W. I. April 4, 1959.

Station 7-59

Electric light over ship's side, anchorage off Pigeon Point, Tobago, W. I. 6 fms. 9:30-9:45 P.M., April 4, 1959.

Station 8-59

Buccoo Reef, Tobago, W. I. 9:30-12:30 A.M., April 5, 1959.

Station 9-59

Thalassia bed near mouth of freshwater stream in mangrove swamp, E. of Pigeon Point, Tobago, W. I. April 5, 1959. Bowman.

Station 10-59

Plankton tow between pier of Tobago Aquatic Club and "Caribee," anchored offshore, Tobago, W. I. 9:20-9:35 P.M., April 5, 1959. Bowman.

Station 11-59

Electric light over side of ship, Tobago, W. I. 9:15 P.M., April 5, 1959.

Station 12-59

From rocky cliff at landing of Crown Point Hotel, between Crown Point and Sandy Point, Tobago, W.I. April 5, 1959. Bowman.

Station 13-59

Isopods from under coconut husks, leaves, and other debris just above high tide line on sandy beach E. of Pigeon Point, Tobago, W. I. April 5, 1959. Bowman.

Station 14-59

Isopods from under log above high tide mark, E. of Pigeon Point, Tobago, W.I. April 5, 1959. Bowman.

Station 15-59

Middle portion of reef, off high ground dry at low tide, Buccoo Reef, Tobago, W. I. 7-9 A. M., April 6, 1959.

Station 16-59

Rocks in Pirates Bay, Tobago, W. I. April 6, 1959.

Station 17-59

Plankton haul with 12" net, Man of War Bay (Pirates Bay), Tobago, W. I. 9:15 P. M., April 6, 1959.

Station 18-59

Dip net at light, Man of War Bay (Pirates Bay), Tobago, W. I. 9:15-9:45 P.M., April 6, 1959.

Station 19-59

Beach seine, by natives, Man of War Bay, Tobago, W. I. Early morning, April 7, 1959.

Station 20-59

Dredging in Man of War Bay, Tobago, W. I. 6-11 fms. 11-12:30 A. M., April 8, 1959.

Station 21-59

Collecting on and among boulders and rocks on beach to left of seining ground, Man of War Bay, Tobago, W. I. 11-12:30 A. M., April 8, 1959.

Station 22-59

Dug from sand at swimming beach, Crown Point Hotel, Tobago, W. I. April 9, 1959. Finlay.

Station 23-59

Sandy beach, Tobago Aquatic Club, Tobago, W. I. April 8, 1959. Bowman.

Station 24-59

On moist soil under leaves, etc., along trace from Bloody Bay to Roxborough, Tobago, W. I. April 8, 1959.

Station 25-59

Plankton tow with 12" net, Bloody Bay, Tobago, W. I. 8:15 A. M., April 8, 1959. Amos.

Station 26-59

Buccoo Reef, Tobago, W. I. April 9, 1959.

Station 27-59

Parlatuvier-Roxborough Road, Tobago, W. I. April 8, 1959.

Station 28-59

Caught on line from stern of ship anchored near Tobago Aquatic Club, Pigeon Point, Tobago, W. I. April 9, 1959. Cowan.

Station 29-59

Electric light from ship anchored off Crown Point Hotel, Tobago, W. I.
8:30 P. M., April 9, 1959.

Station 30-59

Plankton tow and sponge in Thalassia beds near mangrove swamp E. of
Pigeon Point, Tobago, W. I. April 10, 1959.

Station 31-59

Sand flats off beach W. of Pigeon Point, Tobago, W. I. April 10, 1959.

Station 32-59

Sandy bottom at 30-40 ft. off Crown Point Hotel, Tobago, W. I. Aqualung.
April 10, 1959.

Station 33-59

Sandy shoreline, Crown Point Hotel, Tobago, W. I. April 10, 1959.

Station 34-59

Fishes speared near Crown Point Hotel, Tobago, W. I. April 10, 1959.

Station 35-59

Between milepost 4.5 and 5.0 on Mount Saint George-Castara Road, Tobago,
W. I. April 10, 1959. Carasco.

Station 36-59

Dug from rotten log near milepost 7.75 on Mount Saint George-Castara Road,
Tobago, W. I. April 10, 1959. Darsie.

Station 37-59

Beach seining by natives near Crown Point Hotel, Tobago, W. I. April 11,
1959.

Station 38-59

Dredging in sandy bottom at 4-5 fms. near Crown Point Hotel, Tobago, W. I.
April 11, 1959.

Station 39-59

Bottom sample with grab, at anchor off Tobago Aquatic Club, Tobago, W. I.
April 11, 1959.

Station 40-59

From Heliconia flower bracts near milepost 8 on Mount Saint George-Castara
Road, Tobago, W. I. April 10, 1959. Darsie.

Station 41-59

Rocky cliffs along Sandy Point, Tobago, W. I. April 11, 1959.

Station 42-59

Milford Bay, between Pigeon Point and Crown Point, W. end of Tobago, W. I.
30-40 ft., aqualung. April 12, 1959.

Station 43-59

Rocky cliffs along Sandy Point, Tobago, W. I. 6-8 ft. 9:50-10:05 A.M., April 12, 1959.

Station 44-59

In Hermitage River, ca. 1/2 mile from mouth, Hermitage, Tobago, W. I. April 12, 1959. Cowan and Darsie.

Station 45-59

From rotten log in Tobago Forest Preserve near Hermitage, Tobago, W. I. April 12, 1959. Darsie.

Station 46-59

Soil sample, about 1000 ft. above sea level, Tobago Forest Preserve, near Hermitage, Tobago, W. I. April 12, 1959. Darsie.

Station 47-59

Soil sample, about 500 ft. above sea level, Tobago Forest Preserve, near Hermitage, Tobago, W. I. April 12, 1959. Darsie.

Station 48-59

Plankton tow near surface, St. Vincent, W. I. 10:15 A. M., April 13, 1959.

Station 49-59

Plankton tow, below surface, Castries Harbor, St. Lucia, W. I. 10:45 P. M., April 13, 1959. Bowman.

Station 50-59

Plankton tow, at and below surface, off coast just S. of Castries, St. Lucia, W. I. April 14, 1959.

Station 51-59

Sandy shore with some rock, coral and Thalassia beds along W. side of peninsula on N. side of bay, Marigot Bay, St. Lucia, W. I. April 14, 1959.

Station 52-59

Reef just S. of Marigot Bay, St. Lucia, W. I. 12-20 ft. April 14, 1959.

Station 53-59

From old stump in 2.5-3 ft. of water, Marigot Bay, St. Lucia, W. I. April 14, 1959.

Station 54-59

Plankton tow in inner portion of Marigot Bay, St. Lucia, W. I. 10:15 P. M., April 14, 1959.

Station 55-59

Mollusk trap left overnight in 90 fms. off Marigot Bay, St. Lucia, W. I. Set April 14, raised April 15, 1959. Finlay, Nicholson.

Station 56-59

W. side of shore, N. side of Marigot Bay, St. Lucia, W. I. (same locality as No. 51-59). April 15, 1959.

Station 57-59

Reef just S. of Marigot Bay, St. Lucia, W. I. 6-10 ft. Associates of crinoids collected. April 15, 1959.

Station 58-59

From dock wall at Castries, St. Lucia, W. I. April 15, 1959.

Station 59-59

Under bark of live tree on Castries-Dennery Road, 10.5 mi. from Castries, St. Lucia, W. I. April 14, 1959. Darsie.

Station 60-59

Sand and boulder flats inside (depth 1-2 ft.) and outside (5-6 ft.) and off end of breakwater N. of Pigeon Island Club, Pigeon Island, St. Lucia, W. I. April 15, 1959.

Station 61-59

External parasites from silk snapper (Lutjanus synagris(Linn.)) caught on hook and line from ship at anchor between Pigeon Island and mainland of St. Lucia, W. I. April 15, 1959.

Station 62-59

Plankton tow between Pigeon Island and mainland of St. Lucia, W. I. 9:30 P. M., April 15, 1959.

Station 63-59

Plankton net attached to dredge rope several ft. above dredge; dredge hauled on sandy bottom between Pigeon Island and mainland of St. Lucia, W. I. 10:15 A. M., April 16, 1959.

Station 64-59

Dredging in 10-12 ft. on sandy bottom with grass patches off Gros Islets, St. Lucia, W. I. 8:30-9 A. M., April 16, 1959.

Station 65-59

Diving outside Pigeon Island reef, beyond N. end of island, St. Lucia, W. I. April 16, 1959. Nicholson, Finlay.

Station 66-59

Plankton net tow through tops of Thalassia beds near N. end of Pigeon Island, St. Lucia, W. I. April 16, 1959.

Station 67-59

Plankton tow at surface, between Pigeon Island and mainland, St. Lucia, W. I. About 11:00 A. M., April 16, 1959.

Station 68-59

Sand and boulder flats off breakwater N. of Pigeon Island Club, Pigeon Island, St. Lucia, W. I. April 16, 1959.

Station 69-59

Several vertical plankton tows in harbor of Fort de France, Martinique, W. I. About 2 P. M., April 17, 1959.

Station 70-59

Below surface plankton tows made in outer part of bay, Prince Rupert Bay, Portsmouth, Dominica, W. I. 5:30 P. M., April 18, 1959.

Station 71-59

Dip net at night light, Prince Rupert Bay, Portsmouth, Dominica, W. I. 8:45 P. M., April 18, 1959.

Station 72-59

Finlay mollusk trap set in 150 fms. W. of Portsmouth, Dominica, W. I. Set April 18, hauled 5 A. M., April 19, 1959.

Station 73-59

About 0.5 mi. from mouth, Indian River, Portsmouth, Dominica, W. I. April 19, 1959.

Station 74-59

Algae from wall at entrance to Indian River, Portsmouth, Dominica, W. I. April 19, 1959.

Station 75-59

Among boulders, rocks, dead corals and Acropora in 1.5 ft. W. of Portsmouth, Dominica, W. I. April 19, 1959.

Station 76-59

Diving in 3-6 ft. off shingle beach W. of Portsmouth, Dominica, W. I. 3:30-5:15 P. M., April 19, 1959. Nicholson, Jordan and Finlay.

Station 77-59

Dredging between ship anchorage and shore, Portsmouth, Dominica, W. I. April 19, 1959.

Station 78-59

From bromeliad axil, Layou Valley Road, 11.5 mi. NE of Roseau, Dominica, W. I. April 18, 1959. Darsie.

Station 79-59

Black sand beach, Fox Bay (just N. of Plymouth), Montserrat, W. I. April 20, 1959.

Station 80-59

Several vertical plankton tows (combined) from end of ship, Fox Bay, Montserrat, W. I. 9 P. M., April 20, 1959.

Station 81-59

From algae and grass in 8 ft. in lagoon at S. end of Barbuda, W. I. April 22, 1959. Bowman.

Station 82-59

Plankton tow made at entrance to Harbor, near Fort James, St. Johns, Antigua, W. I. About 9:15 P. M., April 22, 1959.

Station 83-59

Darby Cave (a sinkhole about 72 ft. deep and 400 ft. in diameter), Barbuda, W. I. April 23, 1959.

Station 84-59

Fossils from wall under overhang, Darby Cave, Barbuda, W. I. April 23, 1959.

Station 85-59

Soil and debris from hole on stalagmite, Darby Cave, Barbuda, W. I. April 23, 1959.

Station 86-59

Snail from under rock along road from Codrington to Darby Cave, Barbuda, W. I. April 23, 1959.

Station 87-59

Shallow (about 1" deep) temporary pools in coral rock, Codrington, Barbuda, W. I. April 24, 1959.

Station 88-59

Bryant Cave, Barbuda, W. I. April 24, 1959.

Station 89-59

Sandy shore, lagoon side, Barbuda, W. I. April 23, 1959.

Station 90-59

Dark Cave, Barbuda, W. I. April 24, 1959.

Station 91-59

Shore and shallow water, 0-3 ft., over algal and hydroid beds, Barbuda, W. I. April 25, 1959.

Station 92-59

Lagoon side, Oyster Pond Landing, Barbuda, W. I. April 25, 1959.

Station 93-59

Oyster Pond Landing, lagoon side, Barbuda, W. I. From under scanty amounts of algae washed up on shore. April 25, 1959. Bowman.

Station 94-59

Diving on reef, 1-2 fms., off Cocoa Point, Barbuda, W. I. April 25, 1959. Finlay, Nicholson.

Station 95-59

Beach collecting, E. side of Cocoa Point, Barbuda, W. I. April 26, 1959.

Station 96-59

In eel grass beds, E. side of Cocoa Point, Barbuda, W. I. April 26, 1959.

Station 97-59

Diving in 1-2 fms. off Cocoa Point, Barbuda, W. I. April 26, 1959. Jordan, Finlay.

Station 98-59

From dead coral and living and dead Porites clumps in 1-2 ft., N. side Cocoa Point, Barbuda, W. I. April 26, 1959.

Station 99-59

Dredged in 4.5 fms. around ship's anchorage off Cocoa Point, Barbuda, W. I. April 26, 1959.

Station 100-59

Plankton tow near ship's anchorage off Cocoa Point, Barbuda, W. I. 8:30 P.M. April 26, 1959. Bowman.

Station 101-59

Dip net under light, off Cocoa Point, Barbuda, W. I. About 9:30 P. M., April 26, 1959. Nicholson.

Station 102-59

E. side, Cocoa Point, Barbuda, W. I. Rotenone. April 27, 1959.

Station 103-59

Washed from algae taken in 2.5 ft., E. side (E. of 102-59) of Cocoa Point, Barbuda, W. I. April 27, 1959.

Station 104-59

Mysids and shrimps from Bartholomea annulata, Freeman's Bay, English Harbor, Antigua, W. I. April 28, 1959.

Station 105-59

Sea wall from anchorage around dock yard, English Harbor, Antigua, W. I. April 29, 1959. Cowan, Jordan.

Station 106-59

Bat Cave (near English Harbor), Antigua, W. I. April 29, 1959.

Station 107-59

Freeman's Bay, English Harbor, Antigua, W. I. April 29, 1959. Amos school collection.

Station 108-59

Dock yard sea wall, English Harbor, Antigua, W. I. April 29, 1959. Amos school collection.

Station 109-59

Over turtle grass flats off beach N. of Black's Point, Falmouth Bay, Antigua, W. I. Plankton tow also made. April 30, 1959.

Station 110-59

Cracked from rocks and coral, N. of Black's Point, Falmouth Bay, Antigua, W. I. April 30, 1959.

Station 111-59

Sandy beach, N. of Black's Point, Falmouth Bay, Antigua, W. I. 9-12 A. M., April 30, 1959.

Station 112-59

From clumps of turtle grass in 2-3 ft. of water, off Black's Point, Falmouth Bay, Antigua, W. I. April 30, 1959. Cowan.

Station 113-59

Reef off Black's Point, Falmouth Bay, Antigua, W. I. April 30, 1959. Nicholson.

Station 114-59

Mast Pond, near English Harbor, Antigua, W. I. April 29, 1959.

Station 115-59

Bat from mooring line of "Te Vega," moored in English Harbor, Antigua, W.I. May 2, 1959.

Station 116-59

Trap in Freeman's Bay, English Harbor, Antigua, W. I. May 2, 1959. Nicholson.

Station 117-59

Fish caught on line near entrance to English Harbor, Antigua, W. I. May 3, 1959. Nicholson.

Station 118-59

Charlotte Reef, Freeman's Bay, English Harbor, Antigua, W. I. May 3, 1959. Nicholson.

Station 119-59

Algae from Mill Reef Club area, E. of English Harbor, N. of Antigua, W. I. May 4, 1959.

Third Smithsonian-Bredin Caribbean Expedition

April - May 1959

92-foot auxiliary schooner Caribee

Captain Laurence M. Jordan

Personnel

William H. Amos, St. Andrews School, Middletown, Delaware

Thomas E. Bowman, Smithsonian Institution

J. Bruce Bredin, Wilmington, Delaware

Richard S. Cowan, Smithsonian Institution

Richard F. Darsie, University of Delaware

John Finlay, Varadero, Cuba

Desmond V. Nicholson, St. Johns, Antigua Island

Waldo L. Schmitt, Smithsonian Institution

add either after
Trinidad or on line below

Trinidad,

(Port of Spain, yacht harbor)

Sta. 1-59. April 2; 10:30 P. M. Yacht harbor, Port of

Spain. Vertical tows from bottom with 12-inch

add Considerable
mud in sample;
much bioluminescence;
water quite murky.(no. 2 mesh) plankton net at anchorage in
seven meters.
4 fathoms. Bowman

Depth to bottom about 4 fms.

2:00 P.M.

Sta. 2-59. April 3, Yacht harbor, Port of Spain. Caught

six or seven

Gaff-topsail
catfish.with hook and line at anchorage in 3 1/2 - 4
meters.
fathoms. Cowan.Sta. 2A-59. April 3. ~~Yacht harbor, Port of Spain.~~ ~~Caught~~

Depth to bot. 3 1/2 - 4 fms.

Cysts from intestinal wall of gaff-topsail
catfish.Sta. 2B-59. April 3. ~~Yacht harbor, Port of Spain.~~ Gill

from gaff-topsail catfish.

attached
see copy

Porcellanids remained
with brittle star when
placed in pan

Sta. 3-59. April 3; 3:00 P. M. Yacht harbor, Port of
Spain. Large brittle star and apparently
commensal porcellanids, caught with hook and
line at anchorage in ^{six to seven meters.} ~~3 1/2 - 4 fathoms.~~ Cowan.

caught with
which remained with brittle when
placed in sorting
pan

Tobago

Sta. 4-59. April 4; 1:00-3:30 P. M. West of Pigeon Point.
Alpheid shrimp from empty conch shell bearing
sea anemone on outside.

~~Sta. 4-59. April 4; 1:00 - 3:30 P. M. West of Pigeon~~
~~Point.~~ (59a) Worms burrowing in sand.

Sta. 5-59. April 4; 1:00 - 3:30 P. M. West of Pigeon
Point. From sand and beach debris just above
lap of water on shore.

Sta. 6-59. April 4; 1:00 - 3:30 P. M. West of Pigeon
Point. Cracked from weedy coral rock.

Sta. 7-59. April 4; 9:30 - 9:45 P. M. Off Pigeon Point.
Light over side at anchorage in ^{11 meters.} ~~6 fathoms.~~

Sta. 8-59. April 5; ~~9:30 - 12:30 P. M.~~ ^{9:30 - 12:30 P. M.} Buccoo Reef. ^{Mostly cracked from coral rock,} ~~Thalassia bed~~

Sta. 9-59. April 5. East of Pigeon Point. Near mouth
of freshwater stream in mangrove swamp.

also got red
sponge

Collected by swimming with townet through
tops of turtle grass. ^{also a red sponge was} ~~Bowman.~~ ^{picked up here (also).}

Sta. 10-59. April 5; 9:20 - 9:35 P. M. West of Pigeon
Point. ~~Townetting~~ ^{Plankton tow} between Tobago Aquatic
Club pier and anchorage. ~~Bowman.~~

Sta. 11-59. April 5; 9:15 P. M. West of Pigeon Point.

Light over side at anchorage.

Sta. 12-59. April 5. Between Crown Point and Sandy Point.

From rocky cliff at landing of Crown Point

Hotel. ~~Bowman~~

✓ Sta. 13-59. April 5. East of Pigeon Point. ^{Isopods from} Under coconut

husks, leaves and other debris just above

high-tide line on sandy beach. ~~Bowman~~

Sta. 14-59 April 5. East of Pigeon Point. ^{Isopods from} Under log

above high-tide line. ~~Bowman~~

Sta. 15-59. April 6; 7:00 - 9:00 A. M. Buccoo Reef.

From high ground dry at ^{midway of reef} extra low tide.

Sta. 16-59. April 6. Pirates Bay. from prominent

isolated rocks.

Sta. 17-59. April 6; 9:15 P. M. Man of War Bay. Townetting

(12-inch net).

Sta. 18-59. April 6; 9:15 - 9:45 P. M. Man of War Bay.

Dipnetted with light.

Sta. 19-59. April 7; early morning. Man of War Bay. Seining

by natives.

Sta. 20-59. April 8; 11:00^{A.M.} - 12:30 P. M. Man of War Bay.

Dredging with Morrison toothed dredge in ¹¹²⁰ 6-11 meters. ^{however} ~~no specimens taken on this occasion~~ ^{from 6-11 meters} fathoms. ~~Finlay and Nicholson.~~

Sta. 21-59. April 8; 11:00 A. M. - 12:30 P. M. Man of War

Bay. ^{from coarse sand and} On and among boulders and rocks to left

of seining ground.

Sta. 22-59. April 8. Swimming beach of Crown Point Hotel.

Dug from sand. ~~Finlay~~

which day of week Monday

Misc. invertebrates all from 20 fms

Sta. 23-59. April 8. West side of Pigeon Point. From

sandy beach at Tobago Aquatic Club. ~~Bowman~~ ^{Amphipods}

Sta. 24-59. April 8. ^{to} Between Bloody Bay and Roxborough. ^{Bee Wee for}

Trace from
B.B. to Rox.

From moist soil under leaves, etc., along "trace" trail.

Sta. 25-59. April 8; 8:15 A. M. Bloody Bay. Townnetting with
(12-inch net). ~~Amos~~ ^{more or less of Sta 8-59}

Sta. 26-59. April 9. Buccoo Reef; ^{much as at 8-59, but for shorter period}

Sta. 27-59. April 8. Parlatuvier - Roxborough road; ^{isopods, crabs}

Sta. 28-59. April 9. Off Pigeon Point. ^{Fish} Caught on line ^{+ shrimp}
at anchorage near Tobago Aquatic Club. ~~Cowan~~

Sta. 29-59. April 9; 8:30 P. M. Off Crown Point Hotel.

1 Berce discarded Light over side at anchorage; a Berce was discarded

Sta. 30-59. April 10. East of Pigeon Point. Townnetting

in Thalassia beds near mangrove swamp (same

as ^{at} Sta. 9-59). ^{From a large} One-half of sponge preserved,

other half dissected for shrimps and amphipods; also

a Sea anemone.

Sta. 31-59. April 10. West of Pigeon Point. Sand flats

off beach. Also three of about six fishes

that jumped into dinghy from school encountered

on way back from this Station.

Portion of sponge
with anemone in
place, preserved, don't
detach

31a
Large black
sponges from jett
at Pigeon Pt. ~~the~~
has anemone in
place in solid sponge
watch for

Sta. 31a-59. April 10. West of Pigeon Point. Sea anemones
from inside sponge taken on sand flat off beach.

Sta. 32-59. April 10. Off Crown Point Hotel. Scuba diving
on sandy bottom in ^{9-12 meters.} 30-40 feet.

Sta. 33-59. April 10. Crown Point Hotel. ^{Mollusks from} Sandy shore line.

Sta. 34-59. April 10. ^h Near Crown Point Hotel. ^{Fishes} Spear ^{ed} fishing.

Sta. 35-59. April 10. Mount Saint George - Castara road; ^{a frog} found between mileposts 4.5 and 5. ^{C. Carasco.}

Sta. 36-59. April 10. Mount Saint George - Castara road near milepost ~~7.5~~ 7 $\frac{3}{4}$. Dug from rotten log, ^a ^{Darsie.} millipede ^{and} scorpion.

Sta. 37-59. April 11. Near Crown Point Hotel. Beach seining by natives. ^{Fishes squids crab, sea star}

Sta. 38-59. April 11. Near Crown Point Hotel. Dredging ^{seven to nine meters.} on sandy bottom in ~~4-5~~ fathoms.

Sta. 39-59. April 11. Off Tobago Aquatic Club, Pigeon Point. Bottom sample obtained with grab at anchorage. ^{yellow sponge note added to book "not found"}

Sta. 40-59. April 10. Mount Saint George - Castara road near milepost 8; ^{copepods} From Heliconia flower bracts, ^{Darsie. taken with mosquito larvae.}

Sta. 41-59. April 11. Sandy Point. Rocky cliffs ^{along Sandy Point} and ^{sandy shore.} Hydroids thick and numerous, ^{comatulid crinoids common.}

Sta. 42-59. April 12. Milford Bay, between Pigeon Point and Crown Point. Scuba diving in ^{9-12 meters.} ~~30-40~~ feet. Gorgonians and whip corals perhaps twice as large as those collected occurred on bottom. ^{Portunids & lobster in sand along shore}

Sta. 43-59. April 12; 9:50 - 10:25 A. M. Sandy Point.

Rocky cliffs in ^{six to eight} ~~6-8~~ feet. At least three color varieties of comatulid crinoids and thousands of small hermit crabs on sandy bottom, ~~occupying~~ ^{with} remarkable assemblage and variety of shells. Barnacles from rock above tide level, ^{at time.}

Sta. 44-59. April 12. ^{Shrimps and fishes from} ~~River at Hermitage~~, about ^{three-fourths kilometer} ~~1/2 mile~~ from mouth. ~~Cowan and Darsie.~~

Sta. 45-59. Tobago Forest Reserve near Hermitage. ^{Millipedes} From rotten log. Darsie.

Sta. 46-59. April 12. Tobago Forest Reserve near Hermitage. Soil sample from about ^{300 meters} ~~1,000 feet~~ altitude.

~~Darsie.~~

Sta. 47-59. April 12. Tobago Forest Reserve near Hermitage. Soil sample from about ^{150 meters} ~~500 feet~~ altitude.

~~Darsie.~~

West of Saint Vincent Island

Sta. 48-59. April 13; 10:15 A. M. Plankton tow near surface.

Saint Lucia Island

Sta. 49-59. April 13; 10:45 P. M. Port Castries. Sub-surface plankton tow. ~~Bowman.~~

Sta. 50-59. April 14; 2:15 P. M. Offshore just south of Castries. ^{Plankton tows} ~~Tow netting~~ at, and below surface.

~~Stet~~

Sta. 51-59. April 14. Marigot Harbour. Sandy shore with some rock, coral, and Thalassia beds along west side of peninsula on north side of bay.

Sta. 51a-59. April 14. Marigot Harbour. Collected with Weber scoop on sandy shore along west side of peninsula on north side of bay. Finlay.

Sta. 52-59. April 14. ^{Sessile orinoids from} Reef just south of Marigot Harbour. ^{four to six meters} Collecting in ~~12-20~~ feet. ^{also gorgonian} ^{St. Lucia}

Sta. 53-59. April 14. Marigot Harbour. From outside surface and burrows of waterlogged, teredo-riddled stump about ~~3 x 2 x 2~~ ^{three by two by two} feet, just

below surface at low tide on sandy shore along west side of peninsula on north side of bay. This stump harbored a wealth of animal life almost unsurpassed for so small an area, indicating how a "favorable ^{locality} landing" place in an otherwise unfavorable ~~area~~ will accumulate inhabitants; "a marvellous ecological association. Two small

Sta. 54-59. April 14; 10:15 P. M. Marigot Harbour. Plankton tow in inner lagoon.

Sta. 55-59. April 14-15. Off Marigot Harbour. ^{crabs & shells} From mollusk trap set overnight in ~~90 fathoms~~ ^{165 meters}. ^{also} Ctenophores dipped at surface. ~~Finlay and Nicholson.~~

Sta. 56-59. April 15. Marigot Harbour. Sandy shore with some rock, coral, and Thalassia beds along west side of peninsula on north side of bay.

Marvellous
ecological
association
quite a note

"sargeant
majors" got
away

fresh lot of crinoids
a number of amphipods, isopods, star worms & shrimp removed from the crinoids 533

Sta. 57-59. April 15. Reef south of Marigot Harbour.

two to three meters.
Collecting in 6-10 feet.

Sta. 58-59. April 15. Castries. From dock wall. ~~crinoid~~

Sta. 59-59. April 14. Castries - Dennerly road 10 1/2 miles
from Castries. Beneath bark of live tree.

~~Darsie. Millegede.~~

Sta. 60-59. April 15. Pigeon Island. Sand and boulder

6 hippas
from sand patches
along shore
taken with Needham scoop
flats inside, outside, and off end of break-
water north of Pigeon Island Club, one to six feet.

Sta. 61-59. April 15. Between Pigeon Island and main

Island. From silk snapper caught on hook and
line at anchorage in about 8 fathoms.

Sta. 62-59. April 15; 9:30 P. M. Between Pigeon Island
and main Island. Plankton tow.

Sta. 63-59. April 16; 10:15 A. M. Between Pigeon Island
and main Island. From dredge haul, and
plankton net attached
to dredge rope several feet above dredge, over
sandy bottom with turtle grass patches.

Sta. 64-59. April 16; 8:30 - 9:00 A. M. Off Pigeon Island.

Dredging over sandy bottom with turtle grass
patches in 10-12 feet.

Sta. 65-59. April 16. Off north end of Pigeon Island.

Diving outside of reef. Finlay and Nicholson.

Sta. 66-59. April 16. Near north end of Pigeon Island.

Plankton tow through tops of Thalassia beds.

Sta. 67-59. April 16; 11:00 A. M. Between Pigeon Island and main Island. Plankton tow at surface.

Sta. 68-59. April 16. Pigeon Island. Sand and boulder flats inside, ^(1-2 feet) outside ^{5-6 feet} and off end of breakwater north of Pigeon Island Club.

Sta. 68a-59. April 16. Pigeon Island. Chiefly from under ^{in 2 ft water}

3 hippas
with Needham
scoops.

very large boulders along breakwater north of Pigeon Island Club. (location as in 60-59)

Needham scoop also used.

Martinique

Sta. 69-59. April 17; 2:00 P. M. Baie de Fort-de-France.

Vertical ^{in harbor} and surface plankton tows. ^{together with white ship} ^{has leaving} ^{? did the combine all tows?}

Dominica

Sta. 70-59. April 18; 5:30 P.M. Prince Rupert Bay. Sub-surface plankton tow in outer part of Bay.

Sta. 71-59. April 18; 8:45 P. M. Prince Rupert Bay.

Light over side.

Sta. 72-59. April 19. West of Portsmouth. Finlay mollusk trap set overnight in ^{275 meters} ~~150 fathoms~~.

Picked off bait

Sta. 73-59. April 19. Indian River about ^{three-fourths kilometer} ~~1/2 mile~~ from mouth; ^{fresh water, invertebrates, earthworms} ~~about 1/2 mile from~~ ^{from bank above stream.}

Sta. 74-59. April 19. Mouth of Indian River. From ^{from} ~~Algae~~ ^{on wall.} ~~at entrance to Indian R.~~

73-59
Earthworms
from damp soil
above bank.

Sta. 75-59. April 19; 4:00 - 6:00 P. M. North end of

Prince Rupert Bay. Among boulders, rocks,

dead coral head, and few Acropora just off-shore ^{one to one and one-half} in ~~1-1 1/2~~ feet.

Sta. 76-59. April 19; 3:30 - 5:15 P. M. North end of
 Prince Rupert Bay. ^{Scuba} Diving off shingle beach
 in 3-6 feet. ~~Finlay, Nicholson, and L. M.~~
~~Jordan.~~

Sta. 77-59. April 19. Prince Rupert Bay. Dredging between
 anchorage and shore.

Sta. 78-59. April 18. Layou valley road ^{18 1/2 kilometers} ~~11 1/2 miles~~ northeast
 of Roseau, ^{a frog} From Bromeliad axil. Darsie.

Montserrat,

Sta. 79-59. April 20. ~~Fox Bay~~, just north of Plymouth. ^{Collected in upper surf zone, just below surface and under green algae rocks}
 Black sand and boulder beach. ^{Isopods}

Sta. 80-59. April 20; 9:00 P. M. ~~Fox Bay~~, just north of
~~Plymouth~~. Vertical plankton tows.

Barbuda

Sta. 81-59. April 22. Southern end of lagoon. From algae
 and grass in about ^{two meters} 8 feet. ~~Bowman.~~

Antigua Island

Sta. 82-59. April 22; 9:15 P. M. Off Fort James, entrance
 to St. Johns Harbour. Plankton tow.

Island

Between Antigua and Barbuda

Sta. 82a-59. April 23. ~~Flying fish~~ ^{which came aboard Barbuda April 22}
^{A flying fish that came aboard on way to Barbuda day April 22}

Sta. 83-59. April 23. ~~Darby Cave~~ ^{Trunks from a great sink hole named Darby Cave.}
^{See note about a sink hole}

Fossils

Sta. 84-59. April 23. Darby Cave. From wall under overhang, ^{of this} sink hole ~~which is this cave~~

Sta. 85-59. April 23. Darby Cave. Soil and debris from hole in stalagmite ^{measuring 20 cm} about ~~8 inches~~ in diameter and ~~8 inches~~ ^{20 cm} deep; ^{Alumina} ~~stet~~ some earthworms were also collected from damp soil

Sta. 86-59. April 23. Road from Codrington to Darby Cave. Under rock. ^{Shail from under rock along}

Sta. 87-59. April 24. Codrington. From shallow (^{one-} ~~1/2~~ inch deep) temporary pools in coral rock; ^{branchiopods} Darsie. ^{swimming about.}

Sta. 87a-59. April 24. Codrington. From shallow (^{one-} ~~1/2~~ inch deep) temporary pools in coral rock. ^{Bottom muck} ~~Schmitt.~~ ^{from same pools as in Sta 87-59}

Sta. 88-59. April 24. Bryant Cave.

Sta. 89-59. April 23. ^{Dead mollusk shells from} ~~Lagoon side.~~ Sandy shore. ^{of L.M. lagoon.} Jordan.

Sta. 90-59. April 24. Dark Cave; ^{Large tortoise taken} from between large rocks around entrance.

Sta. 91-59. April 25. ^{Lagoon side of} Oyster Pond Landing, west side of island, ^{to lagoon} sandy beach with scattered patches of coral, sponges, and ^{and with} grass and diving over algal and hydroid beds in 0-3 feet, ^{yielded a variety of crustaceans}

Sta. 92-59. April 25. ^{Lagoon side of} Oyster Pond Landing, west side of island. From black sponge about ^{25 cm} ~~10 inches~~ high and ^{45 cm} ~~18 inches~~ in diameter. ^{shrimp and embedded shells}

Sta. 93-59. April 25. ^{Lagoon side of} Oyster Pond Landing, west side of island. Beneath sparse algae washed ashore.

~~Bowman.~~

^{Amphipods from}

Note of
87-59A
ecological
interest
see letters?

Sandy beach
with scattered
patches of coral
sponges and ^{purple} grass

Sta. 94-59. April 25. Reef off Cocoa Point. Diving in
two to four meters.
~~6-12 feet.~~ ~~Finlay and Nicholson.~~

Sta. 95-59. April 26. Eastern side of Cocoa Point. *From Beach,*
and shallow water, *and Sargassum washed up on shore*

Sta. 96-59. April 26. Eastern side of Cocoa Point. Col-
Two diff assemblies
tow & scoop
lected from grass beds with plankton net, *and*
Needham scoop, *(etc.) along sandy shore line*

Sta. 97-59. April 26. Reef off Cocoa Point. Diving in
two to four meters; a repeat of Sta. 94-59
~~6-12 feet.~~ ~~Finlay and L. M. Jordan.~~

Sta. 98-59. April 26. "North" side of Cocoa Point.
Cracked from dead coral and living and dead
one to two
Porites clumps from ~~1-2~~ feet on reef close
to shore.

Sta. 99-59. April 26. Off Cocoa Point. Dredged about
eight meters.
anchorage in ~~4 1/2~~ fathoms.

Sta. 100-59. April 26; 8:30 P. M. Off Cocoa Point.
Plankton tow near anchorage.-

Sta. 101-59. April 26; 9:30 P. M. Off Cocoa Point.
Light over side. ~~Nicholson.~~

Sta. 102-59. April 27. Eastern side of Cocoa Point.
Shrimp from 102-59
Fish
Poisoning with rotenone concentrate. *good haul of fish, one shrimp*

Sta. 102a-59. April 27. Eastern side of Cocoa Point.
From algae.

Sta. 102b-59. April 27. Eastern side of Cocoa Point.
Excavations
From large Porites clumps and some Halimeda.

Sta. 103-59. April 27. Eastern side of Cocoa Point.
two and one-half
Washed from grass growing in about ~~2 1/2~~ feet.

Antigua Island

- Sta. 104-59. April 28; 4:30-5:00 P. M. Freeman's Bay,
English Harbour; mysids and shrimp with anemones
- Sta. 104a-59. April 28; 11:30 A. M. - 12:00 M. Freeman's
Bay, English Harbour; collection as noted under Sta 104-59
- Sta. 105-59. April 29. Dockyard sea wall, Cowan and
L. M. Jordan; mysids, and shells, using scuba and aqua lung
- Sta. 106-59. April 29. Bat Cave, near English Harbour.
Schmitt and Darsie; bats collected for parasites
- Sta. 107-59. April 29. Freeman's Bay, English Harbour.
Amos.
- Sta. 108-59. April 29. Dockyard sea wall, English Harbour.
Amos. 9:00 - 12:00 a.m.
- Sta. 109-59. April 30. Beach north of Black's Point,
Falmouth Harbour. From turtle grass in ^{two to three} ~~2-3~~
feet. Weber scoop on
- Sta. 110-59. April 30. Beach north of Black's Point,
Falmouth Harbour. Cracked from coral, and
encrusted with worm structures tubes
- Sta. 111-59. April 30; 9:00 A. M. - 12:00 M. From sandy
beach north of Black's Point, Falmouth Harbour.
Collected in part with Needham scoop.
- Sta. 112-59. April 30. Off Black's Point, Falmouth Harbour.
From Turtle grass uprooted in ^{two to three} ~~2-3~~ feet.
uprooted turtle grass
- Sta. 113-59. April 30. Reef off Black's Point, Falmouth
Harbour. Nicholson.

from
Bartholomew
annulata

Weber scoop
anemone buried
in sand

Tub full of
such

2 lots with
this stu no

but from now line ^{at D.V.} up which
had crawled apparently from
full in water.

539

Sta. 114-59. April 29. Mast Pond, near English Harbour.

Fiddler crabs From mud along edge of Pond.

which had ^{from} crawled up

Sta. 115-59. May 2. English Harbour. From mooring line
of yacht Te Vega. L. M. Jordan.

from
water
onto

Sta. 116-59. May 2. Freeman's Bay, English Harbour.

~~Small~~ ^{Small} Shrimp ^{from} Trap baited with crushed sea urchin. Nicholson
~~son~~

Sta. 117-59. May 3. Near entrance to English Harbour.

~~Fish not mentioned~~
^{Fish} Caught on line. Nicholson.

Sta. 118-59. May 3. Charlotte Reef, Freeman's Bay, English
Harbour. ~~Collected~~ ^{three to four} Diving in ~~34~~ feet.

Nicholson.

Sta. 119-59. May 4. Mill Reef Club area, east of English
Harbour.

Algae from ^{the Red beach}

were sent to W. B. Taylor

[private]

